

Senegal Needs Assessment

Introduction

Although advances in telecommunications have created new ways to access and manage information, many health professionals and health policy makers in Africa lack access to information needed to make evidence-based decisions (Pakenham-Walsh and Bukachi 2009). Previous reviews of health information needs and use in Africa point to poor availability of information that is context-specific and supports patient care. At the district level, many health providers lack reliable monitoring and supervision data; at the provincial level, managers often cannot access current data for program planning and evaluation; at the national level, policy makers lack timely and relevant data upon which to base decision-making (K4Health Project, 2009).

To inform activities for a global project focusing on health information, the Knowledge for Health (K4Health) project sought to better understand information access and use at the national, sub-national, facility, and district level (K4Health Project, 2011). As part of that project, we were interested to learn more about health information needs and use in Senegal, the former colonial capital of West Africa, a country with significant influence among other Francophone countries in the sub-region.

A literature search revealed only one study on health information in Senegal, so the project conducted a needs assessment among a broad range of health professionals and decision makers in both urban and rural parts of the country. The Senegal needs assessment, part of a multi-country research effort by the K4Health project, sought to document current systems and resources for managing and sharing health information; document and analyze the use of family planning and reproductive health (FP/RH) information by health professionals, communicators, policy makers, and professional and informal networks; identify obstacles to information sharing; and identify perceived needs and recommendations for strengthening knowledge management systems. The results from this study are intended to inform national efforts to strengthen access to and use of health information in Senegal.

Methods

The needs assessment employed a qualitative approach. FHI 360, Johns Hopkins Bloomberg School of Public Health • Center for Communication Programs (JHU-CCP), the Measure, Learning and Evaluation (MLE) project, and CEFOREP worked together to determine the sample size and draw up a list of potential respondents. Data collection



by CEFOREP researchers took place from February to April 2010. A total of 75 individual key informant interviews (KIIs) were conducted with a broad range of stakeholders and key leaders involved in the management of health information. They included health authorities, development partners, non-governmental organizations (NGOs), health service providers and supervisors, elected officials, news media, and professional networks active in the health field. KIIs were conducted in the Dakar region, as well as the Koalack region and the St. Louis region. Two focus groups were conducted with community health workers in Kaolack and St. Louis. Content analysis of the data was done manually by theme.

Results

Information needs

Information needs varied with respondents' position and setting. At the central level, actors and stakeholders mainly want access to impact indicators, evidence-based information, and research results that can improve planning and programming. Practical information on best practices in management and prevention services, and data on service statistics were in high demand by health system managers.

"It would be interesting to know what explains why some health facilities are better attended than others. Is this related to the health facility itself? Staff behavior? Maybe there are other apprehensions, other perceptions in the population and we do not know."

— Health official, Ministry of Health and Prevention

Many groups expressed a need for technical information in different health areas (e.g., more detail on the side effects of contraceptive methods), and at the district and community level, information on the socio-cultural determinants that affect men and women's perceptions of FP and contraceptive continuation. All groups cited the need for information that would help them address religious and cultural barriers to use of FP, including negative rumors, and to better motivate and involve men.



Information sources

Respondents access information from multiple sources and through multiple channels, depending on the setting and on what they need to know. Government information services and departments, including but not limited to the National Health Information System (NHIS), are primary sources of statistical data, although respondents complained that government staff had insufficient expertise in the field of information management, data were not always available, and data were not regularly updated.

While the Internet was most commonly cited by respondents as a key source, all groups comprised of literate individuals mentioned printed documents as still essential. Syntheses or reviews were among the most popular printed documents; others included manuals, checklists, updates, news alerts, conference reports, newsletters, fact sheets, and posters. Resource centers housing print copies of Senegal-specific materials were in high demand, although the existence of such centers was quite limited.

Public-sector health providers reported they tend to seek information from interpersonal sources, especially health care supervisors and reproductive health coordinators.

Information seeking and sharing

Health professionals actively seek information to improve practices and programs. Many respondents have access to and report using a variety of electronic communication channels to share information, including email, the Internet, and organizational intranets, as well as conventional channels like the telephone and paper documents. Most organizations use the Internet to stay current, but access is sometimes limited and Internet research does not always yield information specific to Senegal. The Ministry of Health and Prevention (MHP) uses multiple channels to communicate policies, protocols, and other essential information down through the health hierarchy, including workshop updates, mail, phone, fax, and email. It also has invested heavily in an informational website, but the site is not regularly updated.

Face-to-face interactions are the preferred way to share information at every level. Many respondents consider interpersonal communication to be richer because it permits people to obtain references, ask questions, and seek explanations on the spot. Indeed, many respondents consider written materials insufficient unless they are followed by some kind of dialogue or exchange. Health information is routinely shared, discussed, and analyzed during coordination meetings held by staff in health districts and medical regions, during meetings of professional associations, and during supervision visits.

"I really like the face to face; the dynamic there is in exchanging, and the opportunity to ask questions and compare ideas."

– NGO development partner

Public-sector service providers primarily rely on workshops and training seminars to stay current, but they may also seek information from supervisors and reproductive health coordinators. In contrast, private-sector providers primarily rely on memberships in networks or associations to stay informed; they also subscribe to journals and continuing education activities. Community health workers rely more on television and radio, because their remote location limits opportunities to attend meetings and workshops.

Dissemination of recent information is the missing element in the Senegalese health system, according to some respondents. Ensuring that public-sector providers have access to up-to-date information is one of the greatest challenges facing the Ministry, and getting strategic information in a timely manner remains difficult.

Respondents offered several suggestions to improve access to current information. Some proposed connecting

multiple resource centers to improve the storage and use of information, or linking resources to make searching for information easier. Others were excited by the idea of creating a central family planning and reproductive health website covering the current situation in Senegal and international experiences, best practices, and guidelines.

Barriers to accessing and applying information

Lack of resources and human capacity impede the flow of information at all levels of the health pyramid. Neither the government nor professional networks have a system to organize the collection and sharing of information. In many cases information exists, but is not published. Many groups lack an information unit or designated staff member responsible for collecting and organizing information. Some locations lack computer equipment, Internet access, and reliable electricity. And staff often lack the training to search for information online and the time to share it.

Respondents complain about delays in receiving information, and receiving unreliable, incomplete, or irrelevant information. Technical jargon can make information difficult to understand, while the sheer amount of information available discourages others. Ideally, many respondents would like to receive brief syntheses of essential information.

"We lose the possibility of capitalizing on experience and information because there is not a good system for accessing information, for storing it, for sharing it, or for letting people know it exists in a way that can be exploited... You often have to search high and low to pull together useful information on a specific topic."

– NGO director

Information and communication technologies (ICTs)

Respondents reported employing both traditional and innovative strategies to transfer and share information. Some strategies rely on interpersonal channels, others on hybrid approaches that blend use of ICTs and traditional forms of knowledge exchange.

Mobile phones are available throughout Senegal, even in remote areas. While all of the respondents and their colleagues own a mobile phone, they mostly use them for coordination or in case of emergency. Most respondents thought using mobile phones to share information would be too expensive, since they must shoulder the costs themselves. Respondents occasionally send text messages, but consider the format limiting.

Email and the Internet have become indispensable for real-time sharing of health information, and the MHP relies on these new technologies for management and the sharing of program information. Access varies with the work environment, but is improving.

At the district level, most health centers and some health posts have computers with an Internet connection, but these are virtually nonexistent at the community level. The fax has emerged as a useful tool for sending reports, and many organizations share documents internally over their own intranets. Respondents reported that online courses, teleconferencing, and smart phones are not much used.

Information flow between levels of the health care system

The communication of standard policies, protocols, and other information from the central and regional levels to public-sector providers travels a well-established circuit through the health system. Information moves from the MHP to the health post via the medical region and the health district, through coordination meetings, workshop updates, mail, or administrative updates. The MHP system for information sharing from the decentralized level to the center is similarly linear and is pegged to certain time intervals.

"Information collected is fed back up hierarchically... Activity reports are validated by the person responsible at each health facility who then sends it up to his supervisor, all the way to the NHIS: house – health post – district – medical region and national level. Now, the information is fed up the hierarchy via email."

– MHP program manager

District and regional teams were reported to be the main information managers at the local level, the key gatekeepers involved in information exchange and knowledge processing, with links to both the decentralized and central levels of the health system. They participate in various coordination meetings, are invited to all meetings and training sessions, and receive information about the operation and implementation of programs in the form of memos or ministerial decrees. They are responsible for the collection, analysis, storage, and dissemination of information to higher levels. These gatekeepers often use email to inform teams quickly about new information, and rely heavily on meetings to discuss how to apply knowledge.

Networks

Senegal has many health networks and professional associations that could be effective channels for sharing information. Some are supported by the state, while others were formed by external partners, such as UNFPA. Although most are located in Dakar, some reach a wider area. Existing networks are generally active in awareness-raising, advocacy, and the dissemination of information, and a few also engage in capacity building. When ICTs are not available, they use meetings and seminars to disseminate information and promote their activities to members.

According to respondents, networks make it easier to access information, promote the regular exchange of knowledge, open new perspectives, facilitate contacts, permit more thorough analysis of a situation and minimize errors, and help them keep up-to-date.

"It gives us additional resources which we can access. It gives us access to people that we could not have access to otherwise. It's much easier to do something for someone when we know each other, and the network is used to weave this kind of knowledge."

– Development partner

Family planning information

According to respondents, enhanced communication can help overcome barriers to the use of family planning in Senegal. Among the strategies they suggested were: raising awareness of the usefulness of family planning; working to dispel rumors and socio-cultural barriers; involving men; educating religious leaders; and disseminating practical information about family planning. Over half of respondents said their organizations could play a role by sharing information or raising awareness about family planning.

In addition to increasing public knowledge of family planning, respondents wanted greater knowledge themselves, including technical information about contraceptive methods and insights into the social and cultural factors that hinder family planning use.

Preferences for knowledge exchange approaches

Most described coordination meetings as a preferred forum for sharing information, and many said the best communication channels by far were interpersonal ones.

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– NGO development partner

Meetings between medical region staff and district managers, "formative supervision" meetings, were mentioned as critical venues for information sharing that focus on improving service delivery and facility management. At the regional level, supervisory visits were described as a good channel to communicate and discuss information relevant to program implementation, and an activity essential for the monitoring of operational plans for the district or the medical region.

Implications and Recommendations

Increasing access to health information and its use for decision-making presents a huge challenge in Senegal but is essential to improve health services. Despite challenges related to inconsistent availability of reliable health information and resources (including time constraints), health professionals actively seek information to improve practices and programs.

Managers need to focus on providing timely information in a useful format. Action should be taken at every level of the health system and should take advantage of multiple, complementary communication channels, including but not

limited to ICTs. Mobile phones and SMS text messaging in particular may be good channels to explore for information sharing. Nevertheless, there exists a nearly universal and persistent need for paper-based information and a strong preference for interpersonal communication as a method for information sharing, knowledge synthesis, and learning.

Results of this needs assessment indicate the crucial role that hierarchy and social organization play in the flow of communication and in knowledge exchange. Depending on where a given provider or manager is in the organizational, social or community structure, he or she may be a crucial lynchpin in information sharing, may have access to information, or may have little access to information. Study participants therefore proposed the following recommendations:

- Establish a system to ensure better storage and use of information and experiences at the central level, and establish a mechanism to share results of research effectively.
- Improve the usefulness of national websites and create a website focusing on information relating to family planning/reproductive health.
- Strengthen the capacity of professional networks for information management.
- Ensure wider coverage of access to ICTs, including adequate facilities for use of the Internet and training of providers in web searching.
- Strengthen coordination for better knowledge sharing.
- Strengthen the capacity of supervisors in management of information and strengthen the ability of senior officials to use information for program and policy design.
- Establish a mechanism to help community health workers access useful and practical information on family planning and reproductive health.

We conclude that Senegal is still confronting issues related to the three main determinants of use of health information: the technical aspects of data processes and tools, the behavior of individuals who provide and or use data, and the system or organizational context that supports data collection, availability and use.

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